

Appl. No. 10/765,633  
Amdt. dated March 2, 2006  
Reply to Office action of January 6, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**CLAIMS:**

1. **(Withdrawn and Currently Amended)** A watering system for a poultry house, the watering system comprising:

a watering line, said watering line comprising a plurality of pipe segments connected together by a coupling mechanism; said pipe segments each including at least one drinker opening positioned along a side of the pipe segment and an opening in the form of a slot extending inwardly from an end of said pipe segment; said coupling mechanism comprising a tube having opposed opened ends, said tube being sized and shaped to axially and slidingly receive said pipe segments in the opposed opened ends of said tube; a seal to form a fluid tight seal between said pipe segments and said tube; and a keying element which engages ends of said pipe segments; said coupling mechanism being at a predetermined location relative to said drinker opening; said coupling mechanism rotationally fixing said pipe segments relative to each other such that the drinker openings of the pipes segments in the watering line are rotationally aligned and rotationally fixed;

said coupling mechanism tube keying element being integral with said tube and extending from a surface of said tube; said keying element comprising a

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rib extending axially along a surface of said tube; said opening in said pipe segment comprising a slot extending inwardly from an end of said pipe segment; said keying element further including an axially extending cap on said rib, said cap having a bottom surface which extends outwardly from opposite sides of said rib, whereby said key has a generally T-shaped configuration in end elevation, said key rib having a height slightly greater than the annular width of said pipe segment; whereby, said key cap will sandwich said pipe segment between said key cap and said tube inner surface;

a stabilizing bar, said stabilizing bar including an axially extending shoulder; and

a plurality of clips which suspend said watering line from said stabilizing bar;

whereby, said coupling mechanism keys and rotationally fixes said pipe segments of said water line on to another to ensure alignment of said drinker openings and to prevent rotational movement of said pipe segments relative to each other;.

2. **(Withdrawn)** The watering system of claim 62 wherein said pipe segment projection includes an outer surface and a depression formed in said outer surface; said clip boot comprising radiused surface which engages said pipe segment depression.

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3. **(Withdrawn)** The watering system of claim 2 wherein said boot includes a back surface, front surface, side surfaces, and bottom surface defining a pocket; said boot front surface having a top edge defining said radiused surface; said projection including a portion which is received in said clip boot pocket.

4. **(Canceled)**

5. **(Canceled)**

6. **(Canceled)**

7. **(Canceled)**

8. **(Canceled)**

9. **(Canceled)**

10. **(Canceled)**

11. **(Canceled)**

12. **(Canceled)**

13. **(Canceled)**

14. **(Canceled)**

15. **(Canceled)**

16. **(Canceled)**

17. **(Canceled)**

18. **(Withdrawn and Currently Amended)** The watering system of claim ~~15~~ 1 wherein said coupler includes a stop on an inner surface of said

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coupler body; said stop being substantially perpendicular to said key; said stop being positioned in said coupler body to be positioned approximately midway along the length of said key.

19. **(Withdrawn)** The watering system of claim 18 wherein said stop comprises a circumferential rib.

20. **(Withdrawn and Currently Amended)** The watering system of claim 44 1; said coupler mechanism defining a coupler body; said coupler mechanism including a key position indicator on an outer surface of said coupler body; said key position indicator having an angular position on said body corresponding to the angular position of said key within said body.

- 21. **(Canceled)**
- 22. **(Canceled)**
- 23. **(Canceled)**
- 24. **(Canceled)**
- 25. **(Canceled)**
- 26. **(Canceled)**
- 27. **(Canceled)**
- 28. **(Canceled)**
- 29. **(Canceled)**
- 30. **(Canceled)**
- 31. **(Canceled)**

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32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Previously Presented) A tube coupling mechanism for rotationally aligning and positively rotationally fixing two adjacent pipe segments relative to each other; said coupling mechanism comprising a tube having opposed opened ends, said tube being sized and shaped to axially receive said pipes segments in the opposed opened ends of said tube; a seal to form a fluid tight seal between said pipe segments and said tube; and a keying element which engages ends of said pipe segments to rotationally align and rotationally fix adjacent pipe segments relative to each other; said keying element being integral with said tube and extending from a surface of said tube; said keying element comprising a rib extending axially along a surface of said tube; said opening in said pipe segment comprising a slot extending inwardly from an end of said pipe segment; said keying element further including an axially extending cap on said rib, said cap having a bottom surface which extends outwardly from opposite sides of said rib, whereby said key has a generally T-shaped configuration in end elevation, said key rib having a height slightly greater than the annular width of said pipe segment; whereby, said key cap will sandwich said pipe segment between said key cap and said tube inner surface.

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36. **(Previously Presented)** The tube coupling mechanism of claim 35 wherein said cap has a curvature corresponding to the curvature of said pipe segment and said tube inner surface.

37. **(Previously Presented)** A tube coupling mechanism for rotationally aligning and positively rotationally fixing two adjacent pipe segments relative to each other; said coupling mechanism comprising a tube having opposed opened ends, said tube being sized and shaped to axially receive said pipes segments in the opposed opened ends of said tube; a seal to form a fluid tight seal between said pipe segments and said tube; and a keying element which engages ends of said pipe segments to rotationally align and rotationally fix adjacent pipe segments relative to each other; said keying element being integral with said tube and extending from a surface of said tube; said keying element comprising a rib extending axially along a surface of said tube; said opening in said pipe segment comprising a slot extending inwardly from an end of said pipe segment; said coupler including a stop on an inner surface of said tube; said stop being substantially perpendicular to said key; said stop being positioned in said coupler body to be positioned approximately midway along the length of said key.

38. **(Withdrawn)** The tube coupling mechanism of claim 37 wherein said stop comprises a circumferential rib.

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39. **(Previously Presented)** A tube coupling mechanism for rotationally aligning and positively rotationally fixing two adjacent pipe segments relative to each other; said coupling mechanism comprising a tube having opposed opened ends, said tube being sized and shaped to axially receive said pipe segments in the opposed opened ends of said tube; a seal to form a fluid tight seal between said pipe segments and said tube; and a keying element which engages ends of said pipe segments to rotationally align and rotationally fix adjacent pipe segments relative to each other; said keying element being integral said tube and extending from a surface of said tube; a key position indicator on an outer surface of said tube; said key position indicator having an angular position on said tube corresponding to the angular position of said key within said tube.

40. **(Canceled)**

41. **(Currently Amended)** A coupler for rotationally aligning and rotationally fixing two adjacent pipe segments of an animal drinking system relative to each other; said pipe segments comprising a wall defining a passage through which fluid can flow, at least one fluid outlet positioned along the length of said wall; and a slot at at least one end of said wall; said coupler comprising a hollow tube defined by a wall having an inner and outer surface; said tube being sized and shaped to telescopically mate with and seal against said pipe segments; said tube comprising a key sized and shaped to engage said pipes;

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said key comprising at least one axially extending leg extending from said wall and an axially extending cap on said leg, said cap having a bottom surface which extends outwardly from opposite sides of said rib, whereby said key has a generally T-shaped configuration in end elevation, said key rib having a height slightly greater than the annular width of said pipe segment; said coupler leg and said slots of said pipe segments being sized and shaped such that said coupler leg engages said pipe segment slots; such that, when said pipe segments are mated with said coupler, said key cap will sandwich said pipe segment between said key cap and said tube inner surface said outlets of said two pipe sections will be rotationally aligned with each other.

42. (Canceled)

43. (Canceled)

44. (Previously Presented) A coupler for rotationally aligning and rotationally fixing two adjacent pipe segments relative to each other; said coupler comprising a hollow tube defined by a wall having an inner and outer surface; said tube being sized and shaped to telescopically mate with and seal against said pipe segments; said tube comprising a key sized and shaped to engage said pipes; said key comprising at two axially extending legs extending from said wall, said legs being spaced apart from each other; said key further including an axially extending cap on said leg, said cap having a bottom surface which



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extends outwardly from opposite sides of said leg, whereby said key has a generally T-shaped configuration in end elevation.

45. **(Previously Presented)** The coupler of claim 44 wherein said key cap has a curvature corresponding to the curvature of said coupler inner surface.

46. **(Previously Presented)** A coupler for rotationally aligning and rotationally fixing two adjacent pipe segments relative to each other; said coupler comprising a hollow tube defined by a wall having an inner and outer surface; said tube being sized and shaped to telescopically mate with and seal against said pipe segments; said tube comprising a key sized and shaped to engage said pipes; said key comprising at least one axially extending leg extending from said wall; said coupler including a stop on an inner surface of said tube; said stop being substantially perpendicular to said key; said stop being positioned in said tube to be positioned approximately midway along the length of said key.

47. **(Original)** The coupler of claim 46 wherein said stop comprises a circumferential rib, said key extending across said rib.

48. **(Previously Presented)** A coupler for rotationally aligning and rotationally fixing two adjacent pipe segments relative to each other; said coupler comprising a hollow tube defined by a wall having an inner and outer surface; said tube being sized and shaped to telescopically mate with and seal against said pipe segments; said tube comprising a key sized and shaped to engage said

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pipes; said key comprising at least one axially extending leg extending from said wall; a key position indicator on an outer surface of said tube; said key position indicator having an angular position on said tube corresponding to the angular position of said key within said tube.

49. **(Currently Amended)** ~~The coupler of claim 41 wherein~~ A coupler for rotationally aligning and rotationally fixing two adjacent pipe segments of an animal drinking system relative to each other;

said pipe segments comprising a wall defining a passage through which fluid can flow, at least one fluid outlet positioned along the length of said wall; and a slot at at least one end of said wall;

said coupler comprising a hollow tube defined by a wall having an inner and outer surface; said tube being sized and shaped to telescopically mate with and seal against said pipe segments; said tube comprising a key sized and shaped to engage said pipes; said key comprising at least one axially extending leg extending from said wall; said coupler leg and said slots of said pipe segments being sized and shaped such that said coupler leg engages said pipe segment slots; such that, when said pipe segments are mated with said coupler, said outlets of said two pipe sections will be rotationally aligned with each other; said tube including includes a central section and opposed end sections, said central section defining a first diameter and said outer sections defining a second diameter greater than said first diameter; there being a shoulder formed between

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the central and end sections; an end ring received in each of said tube end sections; said end ring having an inner diameter substantially equal to the inner diameter of said tube central section; said end ring having an axial length less than the axial length of said end sections, whereby, a gap is formed between an inner end of said end ring and said shoulder to receive a seal.

50. **(Previously Presented)** The coupler of claim 49 wherein one of said tube end sections and said end rings include a groove and the other of said tube end sections and said end rings include a projection; said projection being received in said groove to snap fit said end ring into said tube end section.

51. **(Canceled)**

52. **(Canceled)**

53. **(Canceled)**

54. **(Canceled)**

55. **(Canceled)**

56. **(Canceled)**

57. **(Canceled)**

58. **(Canceled)**

59. **(Canceled)**

60. **(Canceled)**

61. **(Canceled)**

62. **(Withdrawn)** The watering system of claim 1 wherein:

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said pipe segments including a projection extending outwardly from an outer surface of said pipe segments; and

said clips each including a pair of arms extending from said pipe receiving section; said arms defining a groove sized and shaped to engage said stabilizing bar shoulders; said clips including a pipe receiving section sized to receive said pipe segment and a boot on said pipe receiving section; said boot defining a pocket; said boot being positioned on said clip pipe receiving section to engage said pipe segment projection to positionally fix said pipe segment relative to said clip; whereby said clip keys said pipe segments to said stabilizing bar to prevent rotational movement of said pipe segments relative to said stabilizing bar.